

In the Claims:

Please cancel claims 1, 2, 5, 7, 8 and 11, without prejudice.

Please add new claims 13 and 14 and amend claims 3, 4, 6, 9, 10 and 12 as follows:

1-2. (Cancelled)

3. (Currently Amended) A write precompensation amount setting method, comprising

setting an optimum write precompensation amount at a low temperature according to respective head characteristics with an electric current used at an ordinary temperature, and at an irregular electric current~~The write precompensation amount setting method according to claim 1,~~

wherein the irregular electric current is an electric current lower than the electric current used at the ordinary temperature.

4. (Currently Amended) A write precompensation amount setting method, comprising

setting an optimum write precompensation amount at a low temperature according to respective head characteristics with an electric current used at an ordinary

temperature, and at an irregular electric current, The write precompensation amount setting method according to claim 1, further comprising

obtaining a precompensation amount of each head with an electric current lower than the electric current used at the ordinary temperature, and

determining a write precompensation amount at the low temperature according to the obtained precompensation amount.

5. (Cancelled)

6. (Currently Amended) The write precompensation amount setting method according to claim 4-claim 3, wherein

the head characteristics are a non-linear transition shift (NLTS) characteristic.

7-8. (Cancelled)

9. (Currently Amended) A write precompensation amount setting apparatus, comprising:

a detecting unit detecting respective head characteristics with an electric current used at an ordinary temperature, and an irregular electric current; and

a setting unit setting an optimum write precompensation amount at a low temperature according to the head characteristics detected by said detecting unit~~The write precompensation amount setting apparatus according to claim 7,~~

wherein the irregular electric current is an electric current lower than the electric current used at the ordinary temperature.

10. (Currently Amended) A write precompensation amount setting apparatus, comprising:

a detecting unit detecting respective head characteristics with an electric current used at an ordinary temperature, and an irregular electric current; and

a setting unit setting an optimum write precompensation amount at a low temperature according to the head characteristics detected by said detecting unit~~The write precompensation amount setting apparatus according to claim 7,~~

wherein a precompensation amount of each head with an electric current lower than the electric current used at the ordinary temperature is obtained, and a write precompensation amount at the low temperature is determined according to the obtained precompensation amount.

11. (Cancelled)

12. (Currently Amended) The write precompensation amount setting apparatus according to ~~claim 7~~claim 9, wherein
the head characteristics are a non-linear transition shift (NLTS)
characteristic.

13. (New) The write precompensation amount setting apparatus according to claim 10, wherein
the head characteristics are a non-linear transition shift (NLTS)
characteristic.

14. (New) The write precompensation amount setting method according to claim 4, wherein
the head characteristics are a non-linear transition shift (NLTS)
characteristic.